

## **Methods and Systems for Encoding and Decoding Data in 2D Symbology**

### **ABSTRACT**

Methods and systems for encoding and decoding a 2D symbol is disclosed. According to one aspect of the 2D symbol, the following characteristics are realized: 1) variable symbol width and height; 2) variable print resolution; 3) multiple damage protection levels; 4) large information storage; 5) high redundancy; 6) readable by line based scanning devices; 7) recognizable by either contact scanning or non-contact scanning devices. In addition, a set of positioning lines are attached a 2D symbol for guiding scanning devices to decode the 2D symbol with proper resolution.